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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,595	01/30/2004	Yaling Fan	STL11288.00	7053

7590 04/16/2008

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EXAMINER	
MERCEDES, DISMERY E	
ART UNIT	PAPER NUMBER
2627	

MAIL DATE	DELIVERY MODE
04/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/768,595	FAN ET AL.	
	Examiner	Art Unit	
	DISMERY E. MERCEDES	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *38-43 and 48-51* is/are allowed.

6)☒ Claim(s) *28,29,31,33,36,37 and 43-46* is/are rejected.

7)☒ Claim(s) *30,32,34-35,47* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 August 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Appeal Brief filed on 1/21/2008, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 28,36-37,44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al. (US 2002/0030924).

Shimizu et al. discloses an apparatus comprising: a cantilevered assembly with an upstream leading edge and a downstream trailing edge (fig.1, head 5 and arms 4 with upstream and downstream sides-see page 3, 0038); and a flow control device comprising a blower assembly which provides blowing pressure to the downstream trailing edge (page 3, 0042 and in fig.1, the air flow direction 13 is counterclockwise which will cause air pressure to the downstream side of the arm and disclosed in para.0042 the rotation of the disks (which is been interpreted as the flow control blowing pressure to the downstream sides of the arms) causes air pressure on the downstream side of the arm and the air flow is drawn to into between the disks, which shows that pressure has been provided to the downstream side of the assembly).

As to Claim 36, Shimizu et al. further discloses wherein the cantilevered assembly comprises a transducer configured to write data to a storage medium (fig.1, magnetic read/write head 5 and medium 1).

As to Claim 37, Shimizu et al. further discloses wherein the apparatus characterized as s multi-disk servo writer configured to write servo data to a plurality of rotable discs (fig.1 and page 3, 0036 wherein a magnetic disk stack composed of a plurality of discs 1, stacked to a rotating shaft and read/write heads 5 for reading and writing information on the disks).

As to Claims 44-46 are method claims drawn to the apparatus of claims 28,36-37 and are rejected for the same reasons of anticipation as set forth in the rejection of claims 26,36-37 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 29,31,33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. in view of Balster et al. (US 5,818,658).

As to Claim 29, Shimizu discloses the apparatus of claim 28, but fails to specifically disclose wherein the flow control comprises a nozzle coupleable to the blower assembly to supply pressure. Balster et al. discloses a nozzle 24 coupled to system which generates flow of air 30 below the suspension beam (col.2, lines 51-53-Balster discloses sub-ambient pressure is provided to the suspension. The sub-ambient pressure generated from the nozzle is being interpreted as the claimed pressure supplied from the nozzle, since the claimed pressure is not limited to any specific type of pressure). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to implement a nozzle to generate pressure to the suspension as disclosed by Balster et al. in the apparatus as disclosed by Shimizu et al., the motivation being to prevent additional slider angle during a test procedure or introduction of mechanical sliding motion which could generate debris (col.2, lines 11-14 of Balster et al.).

As to Claim 31, Balster et al. further discloses a flow sensor coupled to a controller to regulate the blowing pressure (col. 3, lines 1-8 wherein Balster discloses a regulator valve to control the level of sub-ambient pressure in the nozzle).

As to Claim 33, Shimizu et al. further discloses a shroud proximate to a downstream region of the cantilevered assembly wherein the flow control device coupled to the blower assembly to provide the blowing pressure through at least one passage in the shroud (see fig.1, and page 3, 0040 –wherein shroud 12a, 12b are located proximate downstream space 11 wherein the air flow goes through at least one passable in the shroud). Shimizu et al. fails to specifically disclose wherein the flow control comprises a nozzle coupleable to the blower assembly to supply pressure. Balster et al. discloses a nozzle 24 coupled to system which generates flow of air 30 below the suspension beam (col.2, lines 51-53-Balster discloses sub-ambient pressure is provided to the suspension. The sub-ambient pressure generated from the nozzle is being interpreted as the claimed pressure supplied from the nozzle, since the claimed pressure is not limited to any specific type of pressure). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to implement a nozzle to generate pressure to the suspension as disclosed by Balster et al. in the apparatus as disclosed by Shimizu et al., the motivation being to prevent additional slider angle during a test procedure or introduction of mechanical sliding motion which could generate debris (col.2, lines 11-14 of Balster et al.).

Allowable Subject Matter

6. Claims 38-43,48-51 are allowed. Claims 38 and 48 are allowable over the prior art of record since the cited references taken alone or in combination do not teach or render obvious: a flow control device comprising a vacuum assembly which provides suction pressure solely to a region proximate the upstream leading edge.

7. Claims 30,32,34-35,47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Shibuya et al. (US 5,636,082); Tadepalli et al. (US 2002/0015255); Hiller t al. (US 6,985,333); Schirle (US 5,898,545); Wood et al. (US 5,907,453);Johnson (US 3,148,248);Chang et al. (US 2002/0075591);Tsang et al. (US 6,987,640);Imai et al. (US 2002/0039253).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISMERY E. MERCEDES whose telephone number is (571)272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. E. M./
Examiner, Art Unit 2627

/HOA T NGUYEN/
Supervisory Patent Examiner, Art Unit 2627